I CLAIM:

1. A method for effecting protection of a digital communications system having N independently configurable communications units and K protection units allocated to the N communications units, where 1 is less than or equal to K is less than or equal to N, the method comprising the steps of:

   (a) in an initial setting-up stage for the protection units, supplying each of one or more of the protection units with configuration data relating to the communications units and storing said data in respective memory locations in the each protection unit;

   (b) where so required, subsequently updating said data with update data relating to said communications units;

   (c) in the event of a fault occurring involving one of the communications units, sending to one of the one or more of the protection units an indication of which communications unit is involved in the fault, and

   (d) causing that protection unit to use said indication to identify the memory location associated with the fault-related communications unit and to use the configuration data in that memory location as its own configuration data, thereby to take over the role of that communications unit in the communications system.

2. Method as claimed in Claim 1, wherein said one or more of the protection units are low-priority-traffic carrying units and are supplied with their own configuration data.

3. Method as claimed in Claim 1, wherein an identification flag is sent to the one or more of the protection units before the configuration-update data relating to the communications units are sent, in order to identify the particular communications unit to which the update data pertain.

4. Method as claimed in Claim 1, wherein said indication is sent to the protection unit by way of a controller unit which controls the configuring of the communications units.

5. Method as claimed in Claim 4, wherein said indication is sent to the protection unit from the controller unit by way of a bus.

6. Method as claimed in Claim 1, wherein said indication is sent to the protection unit directly by the fault-related communications unit.

7. Method as claimed in Claim 1, wherein the fault is detected by a sensor device and said indication is sent to the protection unit directly by the sensor device.

8.   Method as claimed in Claim 1, wherein the configuration data associated with the communications units 1 to N are supplied to the one or more of the protection units in consecutive sequence from one of communications units 1 and N to the other of communications units 1 and N.

9.   Method as claimed in Claim 2, wherein, before the protection unit takes over the role of the fault-related communications unit in the communications system, the traffic previously associated with the protection unit is either diverted to a working communications unit or is discarded.

10. Method as claimed in Claim 9, wherein, after the protection unit has taken over the traffic of the fault-related communications unit, the fault which occasioned such taking over is rectified, the taken-over traffic is redirected back to the fault-related unit, the protection unit is provided with its own configuration data and traffic is again supplied to the protection unit.

11. Method as claimed in Claim 10, wherein, once the fault has been rectified, the fault-related communications unit is reconfigured with the configuration data currently required of that unit and these configuration data are sent to the one or more of the protection units.

12. Method as claimed in Claim 1, wherein K=1.

13. A K:N protection arrangement for a digital telecommunications system having N independently configurable communications and K protection units allocated to the N communications units, where 1 is less than or equal to K is less than or equal to N, wherein the arrangement comprises:

(a) a means for supplying one or more of the protection units with configuration data relating to the communications units and storing said data in said one or more of the protection units;

(b) a means for subsequently updating said data with update data relating to said communications units;

(c) a means for sensing the occurrence of a fault involving one of the communications units;

(d) a means for sending to one of the protection units an indication of which communications unit is involved in the fault, and

(e) a means for causing the protection unit to use said indication to access the configuration data associated with the fault-related communications unit and to use said configuration data as its own configuration data, thereby to take over the role of that communications unit in the communications system.

14. Protection arrangement as claimed in Claim 13, wherein K=1.

15. Protection arrangement as claimed in Claim 14, wherein the communications system is an SDH communications system.

16. A SDH communications system comprising the protection arrangement as claimed in Claim 13.